

We claim:

1. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension
5 of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application
10 specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the member documents.

2. The apparatus of claim 1 wherein the application specific multidimensional
15 information extractor further comprises:

an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific
20 multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element.

3. The apparatus of claim 1 further comprising:

a member document identifier adapted to determine whether a member
25 document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

4. The apparatus of claim 3, wherein the coded formatting comprises network markup language coding.

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5. The apparatus of claim 2 further comprising:

a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

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6. The apparatus of claim 5 wherein the coded formatting comprises network markup language formatting.

7. An apparatus according to claim 1, further comprising:

10 an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

8. An apparatus according to claim 2, further comprising:

15 an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

9. An apparatus according to claim 3, further comprising:

20 an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

10. An apparatus according to claim 4, further comprising:

25 an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

11. An apparatus according to claim 5, further comprising:

30 an application specific multidimensional information verification unit

adapted verify the extraction of application specific multi-dimensional information from the member documents.

12. An apparatus according to claim 6, further comprising:

- 5 an application specific multidimensional information verification unit
adapted verify the extraction of application specific multi-dimensional information from the member documents.

13. An apparatus according to claim 7, further comprising:

- 10 a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the application specific multidimensional information.

14. An apparatus according to claim 8, further comprising:

- 15 a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the application specific multidimensional information.

15. An apparatus according to claim 9, further comprising:

- 20 a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the application specific multidimensional information.

16. An apparatus according to claim 10, further comprising:

- 25 a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the application specific multidimensional information.

17. An apparatus according to claim 11, further comprising:

- 30 a database for storing the application specific multi-dimensional information

adapted to provide an application running on a user computing device access to the application specific multidimensional information.

18. An apparatus according to claim 12, further comprising:

- 5 a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

10 19. The apparatus of claim 7 wherein the application specific multidimensional information verification unit further comprises:

 a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

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20 20. The apparatus of claim 8 wherein the application specific multidimensional information verification unit further comprises:

 a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

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21. The apparatus of claim 9 wherein the application specific multidimensional information verification unit further comprises:

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 a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

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22. The apparatus of claim 10 wherein the application specific multidimensional

information verification unit further comprises:

5 a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

23. The apparatus of claim 11 wherein the application specific multidimensional information verification unit further comprises:

10 a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

15 24. The apparatus of claim 12 wherein the application specific multidimensional information verification unit further comprises:

a comparing unit adapted to compare occurrences of application specific multidimensional information from more than one member document and thereby increase the confidence level of the accuracy of the particular application specific multidimensional information.

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25. An apparatus according to claim 19, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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26. An apparatus according to claim 20, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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27. An apparatus according to claim 21, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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28. An apparatus according to claim 22, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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29. An apparatus according to claim 23, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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30. An apparatus according to claim 24, further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

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31. The apparatus of claim 19 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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32. The apparatus of claim 20 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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33. The apparatus of claim 21 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the

application specific multidimensional information.

34. The apparatus of claim 22 wherein the comparing unit is further adapted to
compare occurrences of incomplete elements of respective dimensions of the
5 application specific multidimensional information.

35. The apparatus of claim 23 wherein the comparing unit is further adapted to
compare occurrences of incomplete elements of respective dimensions of the
application specific multidimensional information.

10 36. The apparatus of claim 24 wherein the comparing unit is further adapted to
compare occurrences of incomplete elements of respective dimensions of the
application specific multidimensional information.

15 37. The apparatus of claim 31 further comprising:
a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the
application specific multidimensional information.

20 38. The apparatus of claim 32 further comprising:
a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the
application specific multidimensional information.

25 39. The apparatus of claim 33 further comprising:
a database for storing the application specific multi-dimensional information
adapted to provide an application running on a user computing device access to the
application specific multidimensional information.

30 40. The apparatus of claim 34 further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

5 41. The apparatus of claim 35 further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

10 42. The apparatus of claim 36 further comprising:

a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

15 43. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

20 an event information extractor adapted to extract occurrences of prospective representations of the time, location and event identity from the member documents, and to extract occurrences of non-prospective event related information from the member documents.

25 44. The apparatus of claim 43 wherein the scheduled event information extractor further comprises:

an encoder adapted to encode the occurrences of prospective representations of the time, location and event identity information and non-prospective event related information contained in member documents according to
30 a time, location and event identity specific coded representation of each of the

occurrences of the time, location and event identity information and a coded representation of non-prospective event related information.

45. The apparatus of claim 43 further comprising:

- 5 a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

10 46. The apparatus of claim 45, wherein the coded formatting comprises network markup language coding.

47. The apparatus of claim 44 further comprising:

- 15 a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

48. The apparatus of claim 47 wherein the coded formatting comprises network markup language formatting.

20 49. An apparatus according to claim 43, further comprising:

 a scheduled event verification unit adapted verify the extraction of scheduled event information from the member documents.

50. An apparatus according to claim 44, further comprising:

- 25 a scheduled event verification unit adapted verify the extraction of scheduled event information from the member documents.

51. An apparatus according to claim 45, further comprising:

- 30 a scheduled event verification unit adapted verify the extraction of scheduled event information from the member documents.

application running on a user computing device access to the scheduled event information.

59. An apparatus according to claim 53, further comprising:

- 5 a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

60. An apparatus according to claim 54, further comprising:

- 10 a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

61. The apparatus of claim 49 wherein the scheduled event information verification unit further comprises:

- 15 a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.

20 62. The apparatus of claim 50 wherein the scheduled event information verification unit further comprises:

 a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.

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63. The apparatus of claim 51 wherein the scheduled event information verification unit further comprises:

- a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.
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64. The apparatus of claim 52 wherein the scheduled event information verification unit further comprises:

- 5 a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.

65. The apparatus of claim 53 wherein the scheduled event information verification unit further comprises:

- 10 a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.

66. The apparatus of claim 54 wherein the scheduled event information verification unit further comprises:

- 15 a comparing unit adapted to compare occurrences of time, location or event identity information from more than one member document and thereby increase the confidence level of the accuracy of the scheduled event information.

20 67. An apparatus according to claim 61, further comprising:

- a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

25 68. An apparatus according to claim 62, further comprising:

- a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

30 69. An apparatus according to claim 63, further comprising:

a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

- 5 70. An apparatus according to claim 64, further comprising:

a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

- 10 71. An apparatus according to claim 65, further comprising:

a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

- 15 72. An apparatus according to claim 66, further comprising:

a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

- 20 73. The apparatus of claim 61 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the scheduled event information.

74. The apparatus of claim 62 wherein the comparing unit is further adapted to
25 compare occurrences of incomplete elements of respective dimensions of the scheduled event information.

75. The apparatus of claim 63 wherein the comparing unit is further adapted to
30 compare occurrences of incomplete elements of respective dimensions of the scheduled event information.

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76. The apparatus of claim 64 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the scheduled event information.

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77. The apparatus of claim 65 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the scheduled event information.

10 78. The apparatus of claim 66 wherein the comparing unit is further adapted to compare occurrences of incomplete elements of respective dimensions of the scheduled event multidimensional information.

15 79. The apparatus of claim 73 further comprising:
a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the scheduled event information.

20 80. The apparatus of claim 74 further comprising:
a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the scheduled event information.

25 81. The apparatus of claim 75 further comprising:
a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the scheduled event information.

30 82. The apparatus of claim 76 further comprising:
a database for storing the application specific multi-dimensional information

adapted to provide an application running on a user computing device access to the scheduled event information.

83. The apparatus of claim 77 further comprising:

- 5 a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the scheduled event information.

84. The apparatus of claim 78 further comprising:

- 10 a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the scheduled event information.

85. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

- 15 an application specific multidimensional information extracting means for extracting occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and extracting occurrences of non-application specific multidimensional information from the member documents.

- 25 86. The apparatus of claim 85 wherein the application specific multidimensional information extracting means further comprises:

- an encoding means for encoding the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a
30 dimension specific coded representation of each dimension of application specific

multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element.

87. The apparatus of claim 85 further comprising:

- 5 a member document identifying means for determining whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

88. The apparatus of claim 87, wherein the coded formatting comprises network
10 markup language coding.

89. The apparatus of claim 86 further comprising:

- 15 a member document identifying means for determining whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

90. The apparatus of claim 89 wherein the coded formatting comprises network markup language formatting.

20 91. An apparatus according to claim 85, further comprising:

 an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

25 92. An apparatus according to claim 86, further comprising:

 an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

30 93. An apparatus according to claim 87, further comprising:

an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

- 5 94. An apparatus according to claim 88, further comprising:

an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

- 10 95. An apparatus according to claim 89, further comprising:

an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

- 15 96. An apparatus according to claim 90, further comprising:

an application specific multidimensional information verification means for verifying the extraction of application specific multi-dimensional information from the member documents.

- 20 97. An apparatus according to claim 91, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 25 98. An apparatus according to claim 92, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 30 99. An apparatus according to claim 93, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 5 100. An apparatus according to claim 94, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 10 101. An apparatus according to claim 95, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 15 102. An apparatus according to claim 96, further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

- 20 103. The apparatus of claim 91 wherein the application specific multidimensional information verification unit further comprises:

a comparing means for comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific
25 multidimensional information.

104. The apparatus of claim 92 wherein the application specific multidimensional information verification unit further comprises:

- a comparing means for comparing occurrences of application specific
30 multidimensional information from more than one member document and thereby

increasing the confidence level of the accuracy of the particular application specific multidimensional information.

105. The apparatus of claim 93 wherein the application specific multidimensional
5 information verification unit further comprises:

a comparing means for comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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106. The apparatus of claim 94 wherein the application specific multidimensional information verification unit further comprises:

a comparing means for comparing occurrences of application specific multidimensional information from more than one member document and thereby
15 increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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107. The apparatus of claim 95 wherein the application specific multidimensional information verification unit further comprises:

a comparing means for comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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108. The apparatus of claim 96 wherein the application specific multidimensional information verification unit further comprises:

a comparing means for comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific
30 multidimensional information.

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109. An apparatus according to claim 103, further comprising:

5 a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

110. An apparatus according to claim 104, further comprising:

10 a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

111. An apparatus according to claim 105, further comprising:

15 a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

112. An apparatus according to claim 106, further comprising:

20 a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

113. An apparatus according to claim 107, further comprising:

25 a database for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

114. An apparatus according to claim 108, further comprising:

30 a database means for storing the application specific multi-dimensional information for providing provide an application running on a user computing device access to the application specific multidimensional information.

115. The apparatus of claim 91 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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116. The apparatus of claim 92 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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117. The apparatus of claim 93 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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118. The apparatus of claim 94 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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119. The apparatus of claim 95 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

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120. The apparatus of claim 96 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the application specific multidimensional information.

121. The apparatus of claim 115 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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122. The apparatus of claim 116 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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123. The apparatus of claim 117 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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124. The apparatus of claim 118 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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125. The apparatus of claim 119 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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126. The apparatus of claim 120 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

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127. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

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an event information extracting means for extracting occurrences of prospective representations of the time, location and event identity from the member documents, and for extracting occurrences of non-prospective event related information from the member documents.

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128. The apparatus of claim 127 wherein the scheduled event information extracting means further comprises:

an encoding means for encoding the occurrences of prospective representations of the time, location and event identity information and non-prospective event related information contained in member documents according to a time, location and event identity specific coded representation of each of the occurrences of the time, location and event identity information and a coded representation of non-prospective event related information.

15 129. The apparatus of claim 127 further comprising:

a member document identifying means for determining whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

20 130. The apparatus of claim 129, wherein the coded formatting comprises network markup language coding.

131. The apparatus of claim 130 further comprising:

a member document identifying means for determining whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

132. The apparatus of claim 131 wherein the coded formatting comprises network markup language formatting.

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133. An apparatus according to claim 127, further comprising:

a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

5 134. An apparatus according to claim 128, further comprising:

a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

135. An apparatus according to claim 129, further comprising:

10 a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

136. An apparatus according to claim 130, further comprising:

15 a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

137. An apparatus according to claim 131, further comprising:

a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

20 138. An apparatus according to claim 132, further comprising:

a scheduled event verification means for verifying the extraction of scheduled event information from the member documents.

25 139. An apparatus according to claim 133, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

30 140. An apparatus according to claim 134, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

- 5 141. An apparatus according to claim 135, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

- 10 142. An apparatus according to claim 136, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

- 15 143. An apparatus according to claim 137, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

- 20 144. An apparatus according to claim 138, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

- 25 145. The apparatus of claim 127 wherein the scheduled event information verification unit further comprises:

a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

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146. The apparatus of claim 128 wherein the scheduled event information verification unit further comprises:

5 a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

147. The apparatus of claim 129 wherein the scheduled event information verification unit further comprises:

10 a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

148. The apparatus of claim 130 wherein the scheduled event information verification unit further comprises:

15 a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

149. The apparatus of claim 131 wherein the scheduled event information verification unit further comprises:

20 a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

150. The apparatus of claim 132 wherein the scheduled event information verification unit further comprises:

25 a comparing means for comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

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151. An apparatus according to claim 145, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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152. An apparatus according to claim 146, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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153. An apparatus according to claim 147, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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154. An apparatus according to claim 148, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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155. An apparatus according to claim 149, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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156. An apparatus according to claim 150, further comprising:

a database means for storing the scheduled event information and for providing an application running on a user computing device access to the scheduled event information.

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157. The apparatus of claim 127 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

5 158. The apparatus of claim 128 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

10 159. The apparatus of claim 129 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

15 160. The apparatus of claim 130 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

20 161. The apparatus of claim 131 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

162. The apparatus of claim 132 wherein the comparing means further comprises means for comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

25 163. The apparatus of claim 157 further comprising:
a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

30 164. The apparatus of claim 158 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

5 165. The apparatus of claim 159 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

10 166. The apparatus of claim 160 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

15 167. The apparatus of claim 161 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

20 168. The apparatus of claim 162 further comprising:

a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the scheduled event information.

25 169. A method for providing application specific multidimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

30 extracting occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and

extracting occurrences of non-application specific multidimensional information from the member documents.

170. The method of claim 169 wherein the application specific multidimensional
5 information extracting step further comprises:

encoding the occurrences of prospective dimensions of application specific
multidimensional information and non-application specific multidimensional
information contained in member documents according to a dimension specific
coded representation of each dimension of application specific multidimensional
10 information and a non-application specific coded representation of each non-
application specific multidimensional information element.

171. The method of claim 169 further comprising:

determining whether a member document contains coded formatting, and if
15 not, whether the member document is a dense document, and if not, rejecting the
document from further processing.

172. The method of claim 171, wherein the coded formatting comprises network
markup language coding.

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173. The method of claim 170 further comprising:

determining whether a member document contains coded formatting, and if
not, whether the member document is a dense document, and if not, rejecting the
document from further processing.

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174. The method of claim 173 wherein the coded formatting comprises network
markup language formatting.

175. The method according to claim 169, further comprising:

30 verifying the extraction of application specific multi-dimensional information

from the member documents.

176. The method according to claim 170, further comprising:

5 verifying the extraction of application specific multi-dimensional information
from the member documents.

177. The method according to claim 171, further comprising:

10 verifying the extraction of application specific multi-dimensional information
from the member documents.

178. The method according to claim 172, further comprising:

 verifying the extraction of application specific multi-dimensional information
from the member documents.

15 179. The method according to claim 173, further comprising:

 verifying the extraction of application specific multi-dimensional information
from the member documents.

180. The method according to claim 174, further comprising:

20 verifying the extraction of application specific multi-dimensional information
from the member documents.

181. The method according to claim 175, further comprising:

25 storing the application specific multi-dimensional information and providing
an application running on a user computing device access to the application specific
multidimensional information.

182. The method according to claim 176, further comprising:

30 storing the application specific multi-dimensional information and providing
an application running on a user computing device access to the application specific

multidimensional information.

183. The method according to claim 177, further comprising:

5 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

184. The method according to claim 178, further comprising:

10 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

185. The method according to claim 179, further comprising:

15 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

186. An apparatus according to claim 180, further comprising:

20 a database means for storing the application specific multi-dimensional information and for providing an application running on a user computing device access to the application specific multidimensional information.

187. The method of claim 175 wherein the application specific multidimensional information verification step further comprises:

25 comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

188. The method of claim 176 wherein the application specific multidimensional information verification step further comprises:

30

comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

- 5 189. The method of claim 177 wherein the application specific multidimensional information verification step further comprises:

comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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190. The method of claim 178 wherein the application specific multidimensional information verification step further comprises:

comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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191. The method of claim 179 wherein the application specific multidimensional information verification step further comprises:

comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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192. The method of claim 180 wherein the application specific multidimensional information verification step further comprises:

comparing occurrences of application specific multidimensional information from more than one member document and thereby increasing the confidence level of the accuracy of the particular application specific multidimensional information.

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193. The method according to claim 187, further comprising:

storing the application specific multi-dimensional information and providing

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an application running on a user computing device access to the application specific multidimensional information.

194. The method according to claim 188, further comprising:

- 5 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

195. The method according to claim 188, further comprising:

- 10 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

196. The method according to claim 190, further comprising:

- 15 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

197. The method according to claim 191, further comprising:

- 20 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

198. The method according to claim 192, further comprising:

- 25 storing the application specific multi-dimensional information and providing provide an application running on a user computing device access to the application specific multidimensional information.

199. The method of claim 187 wherein the comparing step further comprises

- 30 comparing occurrences of incomplete elements of respective dimensions of the

application specific multidimensional information.

200. The method of claim 188 wherein the comparing step further comprises
comparing occurrences of incomplete elements of respective dimensions of the
5 application specific multidimensional information.

201. The method of claim 189 wherein the comparing step further comprises
comparing occurrences of incomplete elements of respective dimensions of the
10 application specific multidimensional information.

202. The method of claim 190 wherein the comparing step further comprises
comparing occurrences of incomplete elements of respective dimensions of the
application specific multidimensional information.

203. The method of claim 191 wherein the comparing step further comprises
comparing occurrences of incomplete elements of respective dimensions of the
15 application specific multidimensional information.

204. The method of claim 192 wherein the comparing step further comprises
20 comparing occurrences of incomplete elements of respective dimensions of the
application specific multidimensional information.

205. The method of claim 199 further comprising:
storing the application specific multi-dimensional information and providing
25 an application running on a user computing device access to the application specific
multidimensional information.

206. The method of claim 200 further comprising:
storing the application specific multi-dimensional information and providing
30 an application running on a user computing device access to the application specific

multidimensional information.

207. The method of claim 201 further comprising:

5 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

208. The method of claim 202 further comprising:

10 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

209. The method of claim 203 further comprising:

15 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

210. The method of claim 204 further comprising:

20 storing the application specific multi-dimensional information and providing an application running on a user computing device access to the application specific multidimensional information.

211. A method for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

25 extracting occurrences of prospective representations of the time, location and event identity from the member documents, and for extracting occurrences of non-prospective event related information from the member documents.

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212. The method of claim 211 wherein the scheduled event information extracting step further comprises:

encoding the occurrences of prospective representations of the time,
location and event identity information and non-prospective event related
5 information contained in member documents according to a time, location and event
identity specific coded representation of each of the occurrences of the time,
location and event identity information and a coded representation of non-
prospective event related information.

10 213. The method of claim 211 further comprising:

determining whether a member document contains coded formatting, and if
not, whether the member document is a dense document, and if not, for rejecting
the document from further processing.

15 214. The method of claim 213, wherein the coded formatting comprises network
markup language coding.

215. The method of claim 214 further comprising:

determining whether a member document contains coded formatting, and if
20 not, whether the member document is a dense document, and if not, for rejecting
the document from further processing.

216. The apparatus of claim 215 wherein the coded formatting comprises network
markup language formatting.

25

217. The method according to claim 211, further comprising:

verifying the extraction of scheduled event information from the member
documents.

30 218. The method according to claim 212, further comprising:

verifying the extraction of scheduled event information from the member documents.

219. The method according to claim 213, further comprising:

5 verifying the extraction of scheduled event information from the member documents.

220. The method according to claim 214, further comprising:

10 verifying the extraction of scheduled event information from the member documents.

221. The method according to claim 215, further comprising:

15 verifying the extraction of scheduled event information from the member documents.

222. The method according to claim 216, further comprising:

 verifying the extraction of scheduled event information from the member documents.

20 223. The method according to claim 217, further comprising:

 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

224. The method according to claim 218, further comprising:

25 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

225. The method according to claim 219, further comprising:

30 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

226. The method according to claim 220, further comprising:

storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

5

227. The method according to claim 221, further comprising:

storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

10

228. The method according to claim 222, further comprising:

storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

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229. The method of claim 217 wherein the scheduled event information verification step further comprises:

comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

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230. The method of claim 218 wherein the scheduled event information verification step further comprises:

comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

25

231. The method of claim 219 wherein the scheduled event information verification step further comprises:

comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

30

232. The method of claim 220 wherein the scheduled event information verification step further comprises:

- 5 comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

233. The method of claim 221 wherein the scheduled event information verification step further comprises:

- 10 comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

234. The method of claim 222 wherein the scheduled event information verification step further comprises:

- 15 comparing occurrences of time, location or event identity information from more than one member document and increasing the confidence level of the accuracy of the scheduled event information.

20 235. The method according to claim 229, further comprising:

 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

236. The method according to claim 230, further comprising:

- 25 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

237. The method according to claim 231, further comprising:

- 30 storing the scheduled event information and providing an application running on a user computing device access to the scheduled event information.

comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

246. The method of claim 234 wherein the comparing step further comprises
5 comparing occurrences of incomplete elements of respective dimensions of the scheduled event information.

247. The method of claim 241 further comprising:
storing the application specific multi-dimensional information and providing
10 an application running on a user computing device access to the scheduled event information.

248. The method of claim 242 further comprising:
storing the application specific multi-dimensional information and providing
15 an application running on a user computing device access to the scheduled event information.

249. The method of claim 243 further comprising:
storing the application specific multi-dimensional information and providing
20 an application running on a user computing device access to the scheduled event information.

250. The method of claim 244 further comprising:
storing the application specific multi-dimensional information and for
25 providing an application running on a user computing device access to the scheduled event information.

251. The method of claim 245 further comprising:
storing the application specific multi-dimensional information and providing
30 an application running on a user computing device access to the scheduled event

information.

252. The method of claim 246 further comprising:

- storing the application specific multi-dimensional information and for
- 5 providing an application running on a user computing device access to the scheduled event information.

253. An apparatus for providing application specific multidimensional information to an application running on a user computing device, wherein at least one
10 dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

- an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application
15 specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the member documents; and,

- an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific
20 multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element.

25 254. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

- 30 an application specific multidimensional information extractor adapted to

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extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the member documents;

- 5 an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of
- 10 each non-application specific multidimensional information element; and,

 a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

- 15 255. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

- 20 an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the member documents;

- 25 an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of
- 30 each non-application specific multidimensional information element;

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a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing; and,

5 wherein the coded formatting comprises network markup language coding.

256. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

10 an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract
15 occurrences of non-application specific multidimensional information from the member documents;

20 an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element; and

25 an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

257. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents,

comprising:

an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract
5 occurrences of non-application specific multidimensional information from the member documents;

an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a
10 dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element;

a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a
15 dense document, and if not, for rejecting the document from further processing;
and,

an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.
20

258. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents,
25 comprising:

an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the
30 member documents;

an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of each non-application specific multidimensional information element;

a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing;

wherein the coded formatting comprises network markup language coding; and,

an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents.

259. An apparatus for providing application specific multi-dimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an application specific multidimensional information extractor adapted to extract occurrences of prospective representations of dimensions of application specific multidimensional information from the member documents, and to extract occurrences of non-application specific multidimensional information from the member documents;

an encoder adapted to encode the occurrences of prospective dimensions of application specific multidimensional information and non-application specific multidimensional information contained in member documents according to a dimension specific coded representation of each dimension of application specific multidimensional information and a non-application specific coded representation of

each non-application specific multidimensional information element;

a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing;

5 wherein the coded formatting comprises network markup language coding;

an application specific multidimensional information verification unit adapted verify the extraction of application specific multi-dimensional information from the member documents; and,

10 a database for storing the application specific multi-dimensional information adapted to provide an application running on a user computing device access to the application specific multidimensional information.

260. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the
15 information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an event information extractor adapted to extract occurrences of prospective representations of the time, location and event identity from the
20 member documents, and to extract occurrences of non-prospective event related information from the member documents; and,

an encoder adapted to encode the occurrences of prospective representations of the time, location and event identity information and non-prospective event related information contained in member documents according to
25 a time, location and event identity specific coded representation of each of the occurrences of the time, location and event identity information and a coded representation of non-prospective event related information.

261. An apparatus for providing scheduled event information to an application
30 running on a user computing device, wherein at least one dimension of the

information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an event information extractor adapted to extract occurrences of
5 prospective representations of the time, location and event identity from the member documents, and to extract occurrences of non-prospective event related information from the member documents;

an encoder adapted to encode the occurrences of prospective
10 representations of the time, location and event identity information and non-prospective event related information contained in member documents according to a time, location and event identity specific coded representation of each of the occurrences of the time, location and event identity information and a coded representation of non-prospective event related information; and,

a member document identifier adapted to determine whether a member
15 document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing.

262. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the
20 information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an event information extractor adapted to extract occurrences of
25 prospective representations of the time, location and event identity from the member documents, and to extract occurrences of non-prospective event related information from the member documents;

an encoder adapted to encode the occurrences of prospective
30 representations of the time, location and event identity information and non-prospective event related information contained in member documents according to a time, location and event identity specific coded representation of each of the

occurrences of the time, location and event identity information and a coded representation of non-prospective event related information;

5 a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing; and,

wherein the coded formatting comprises network markup language coding.

10 263. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

15 an event information extractor adapted to extract occurrences of prospective representations of the time, location and event identity from the member documents, and to extract occurrences of non-prospective event related information from the member documents;

20 an encoder adapted to encode the occurrences of prospective representations of the time, location and event identity information and non-prospective event related information contained in member documents according to a time, location and event identity specific coded representation of each of the occurrences of the time, location and event identity information and a coded representation of non-prospective event related information;

25 a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing;

wherein the coded formatting comprises network markup language coding; and,

30 a scheduled event verification unit adapted verify the extraction of scheduled event information from the member documents.

264. An apparatus for providing scheduled event information to an application running on a user computing device, wherein at least one dimension of the information is an event category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

an event information extractor adapted to extract occurrences of prospective representations of the time, location and event identity from the member documents, and to extract occurrences of non-prospective event related information from the member documents;

an encoder adapted to encode the occurrences of prospective representations of the time, location and event identity information and non-prospective event related information contained in member documents according to a time, location and event identity specific coded representation of each of the occurrences of the time, location and event identity information and a coded representation of non-prospective event related information;

a member document identifier adapted to determine whether a member document contains coded formatting, and if not, whether the member document is a dense document, and if not, for rejecting the document from further processing;

wherein the coded formatting comprises network markup language coding;

a scheduled event verification unit adapted verify the extraction of scheduled event information from the member documents; and,

a database for storing the scheduled event information adapted to provide an application running on a user computing device access to the scheduled event information.

265. An apparatus for providing application specific multidimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents,

comprising:

a co-occurrence model detector adapted to identify prospective application specific information through the occurrence of dimension specific essential key words complying with dimension specific co-occurrence model models.

5

266. An apparatus for providing application specific multidimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents,

10 comprising:

a co-occurrence model detector adapted to identify prospective application specific information through the occurrence of dimension specific essential key words complying with dimension specific co-occurrence model models, wherein the co-occurrence model detector employs at least one intra-level co-occurrence model and at least one inter-level co-occurrence model.

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267. An apparatus for providing application specific multidimensional information to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

20

a co-occurrence model detector adapted to identify prospective application specific information through the occurrence of dimension specific essential key words complying with dimension specific co-occurrence model models, wherein the co-occurrence model detector employs at least one intra-level co-occurrence model and at least one inter-level co-occurrence model; and,

25

wherein the inter-level co-occurrences are co-occurrences of an occurrence of an intra-level co-occurrence.

30 268. An apparatus for providing application specific multidimensional information

to an application running on a user computing device, wherein at least one dimension of the information is a category, from a plurality of member documents electronically extracted from a library of electronically searchable documents, comprising:

- 5 a cyclical dimension specific cyclical dimension pattern detector adapted to detect the occurrence of a dimension specific cyclical dimension information pattern and to identify the dimension information occurring first in each such occurrence of such cyclical dimension information pattern, and adapted to utilize the identified dimension information occurring first in each such occurrence to extract additional
- 10 multidimensional information.